

[54] **DEVICE TO CONTROL INTRODUCTION OF  
DIFFRACTED BEAM BY MEANS OF  
DIFFRACTION ELEMENT**

[75] Inventor: Kazuya Matsumoto, Yokohama,  
Japan

[73] Assignee: Canon Kabushiki Kaisha, Tokyo,  
Japan

[21] Appl. No.: 812,778

[22] Filed: Jul. 5, 1977

**Related U.S. Application Data**

[63] Continuation of Ser. No. 422,337, Dec. 6, 1973, abandoned.

**[30] Foreign Application Priority Data**

Dec. 11, 1972 [JP] Japan ..... 47-124196  
Nov. 29, 1973 [JP] Japan ..... 48-134782

[51] Int. Cl.<sup>2</sup> ..... G03B 17/20

[52] U.S. Cl. .... 354/56; 354/60 L;  
355/1

[58] Field of Search ..... 354/53-57,  
354/60 L, 23 R, 59; 355/1

**[56] References Cited**

**U.S. PATENT DOCUMENTS**

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Primary Examiner—Richard A. Wintercorn  
Attorney, Agent, or Firm—Toren, McGeedy and Stanger

**[57] ABSTRACT**

According to the present invention in the image forming light path a direction-selective diffraction element is provided in such a manner that the image forming beam having entered into said diffraction element is diffracted by means of the diffraction grating structure of said diffraction element and divided into a plurality of beams, whereby at least one of the diffracted beams is led to a photo detecting device while the not diffracted beam is made use of as the image forming beam.

14 Claims, 30 Drawing Figures

